

IOWA DEPARTMENT OF NATURAL RESOURCES

REQUEST FOR SPECIAL WASTE AUTHORIZATION

NOTE: Completion of this form requires reference to Chapter 40, Code of Federal Regulations (CFR), Part 261.
Please type or print in ink. Complete each item in its entirety.

SEND TO

Special Waste Authorization
Environmental Protection Division
Department of Natural Resources
Henry A. Wallace Building, 502 East 9th Street
Des Moines, IA 50319-0034

PHONE

515/281-3426 FAX 515 281-8895

PART I - GENERAL INFORMATION

IS THIS A REQUEST FOR RENEWAL OF A CURRENT SPECIAL WASTE AUTHORIZATION(SWA)? Yes No
IF YES, SWA NUMBER IS -

WASTE GENERATOR	NAME U.S Environmental Protection Agency Region 7			
	ADDRESS 901 N 5th STREET	CITY Kansas City	STATE KS	ZIP 66101
	NAME OF CONTACT PERSON James R MacDonald	TITLE On-Scene-Coordinator	PHONE 913, 551-7767	
DISPOSAL SITE	NAME Cass County Sanitary Landfill			
	ADDRESS 65928 JACKSON Road	CITY ATLANTIC	STATE IA	ZIP 50022

PART II - WASTE CHARACTERIZATION

IDENTIFICATION	NAME OF WASTE Soil Contaminated with Tetrachloroethylene / Drill and Geoprobe Cuttings		SOURCE OF WASTE	
	GENERATION PROCESS Generated During The advancement of Soil borings Using a Truck mounted Drilling Rig over Geoprobe machine -		WASTE ON HAND FOR IMMEDIATE DISPOSAL LBS. ~6,000	
DISPOSAL RATE	WEIGHT PER DISPOSAL 6,000 LB	TIME PERIOD BETWEEN DISPOSALS One Time		
	BASIC PHYSICAL STATE AT 70°F (room temperature) <input checked="" type="checkbox"/> Solid <input type="checkbox"/> Liquid <input type="checkbox"/> Sludge	PERCENT SOLIDS	pH (if solid, use 10% distilled water)	FLASH POINT
			PAINT FILTER LIQUIDS TEST <input type="checkbox"/> Pass <input type="checkbox"/> Fail	
	HAS ANY PRETREATMENT BEEN UTILIZED? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		If Yes, describe. Site: Atlantic WS ID#: IAD039954300 Break: 2.0 Other: A72 Q R D-d	



RECEIVED

NOV 22 2002

NECESSARY SAFETY EQUIPMENT FOR HANDLING WASTE	<input type="checkbox"/> Protective clothing/suit	<input type="checkbox"/> Respirator	<input type="checkbox"/> Absorbent
	<input checked="" type="checkbox"/> Rubber gloves	<input type="checkbox"/> Gas mask	<input type="checkbox"/> Portable eye wash/shower
	<input type="checkbox"/> Rubber boots	<input type="checkbox"/> Self-contained breathing apparatus	<input type="checkbox"/> Pump truck w/water
	<input type="checkbox"/> Face shield/goggles	<input type="checkbox"/> Other (specify)	<input type="checkbox"/> Lime => lbs
	<input type="checkbox"/> Type "B" fire extinguisher/ fire blanket		<input type="checkbox"/> None

CONDUCT AND SUBMIT A LABORATORY ANALYSIS AS DESCRIBED ON PAGE 3

Is this waste a listed hazardous waste under RCRA? If the answer is yes, give the EPA hazardous waste number.

See Attached

Is this waste a characteristic hazardous waste under RCRA? If the answer is yes, give the EPA hazardous waste number.

See Attached

When appropriate give Toxicity Characteristic Leaching Procedure (TCLP) test results.

See Attached

Does this waste contain greater than 50 ppm of PCB's?

See Attached

Does this waste contain greater than 200 ppm carcinogenic PAH's?

See Attached

Does this waste contain greater than 500 ppm total PAH's?

See Attached -

PART III - OTHER USES FOR WASTE

INDICATE ALTERNATIVE USES FOR THE GENERATED (OTHER THAN DISPOSAL) AND REASONS NOT UTILIZED

PART IV - CERTIFICATION

"I certify under penalty of law (§455B.417.1(c), Code of Iowa) that I have personally examined and am familiar with the information submitted in this document concerning hazardous waste, and all attachments, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information concerning hazardous waste, including the possibility of fine and imprisonment." Further, I am aware that the Special Waste Authorization for this waste will be voided if false representation occurs.

TYPED NAME <i>James Mac Donald</i>	TITLE On-Site Co-ordinator	DATE <i>11/28/02</i>
SIGNATURE <i>James Mac Donald</i>	COMPANY U.S. Environmental Protection Agency	

INSTRUCTIONS FOR LABORATORY ANALYSIS

WASTE ANALYSIS

1. Perform the Toxicity Characteristic Leaching Procedure test outlined in 40 C.F.R. 261, Appendix III. Report all results in mg/l of eluate, mg/kg of original sample. In some cases, if there is reason to believe some of the TCLP constituents are not present, the TCLP metals need only be analyzed for. Contact the department prior to deleting the specific constituents.
2. Provide initial pH of waste.
3. If a virgin product is being disposed, an MSDS sheet may be substituted for the TCLP test. Contact the department for verification.
4. Conduct the paint filter liquids test according to EPA publication SW-846, Third Edition, Test Methods for Evaluating Solid Waste.

Attachment I

Is the waste a listed hazardous waste under RCRA? If the answer is yes give the EPA hazardous waste number.

No, the waste is not a listed hazardous waste under RCRA. The soil contaminated with tetrachloroethylene is not a F001 or F002 listed waste because the exact source of the tetrachloroethylene is not known. Also, it is not known if the contaminated soil is resultant from a spill so it is not a U210 listed waste.

Is the waste a characteristic hazardous waste under RCRA? If the answer is yes give the EPA hazardous waste number.

No, the waste is not a characteristic hazardous waste under RCRA. Laboratory reports show total VOC analysis of tetrachloroethylene in the soil at concentration ranging from below 10 ug/kg (ppb) to 5,100 ug/kg. Determining the total tetrachloroethylene concentration and dividing it by 20 can determine the maximum theoretical leachate concentration. So, the maximum theoretical leachate concentration of the same samples would range from below 0.010 mg/L to 0.225 mg/L. Therefore the waste is not a characteristic hazardous waste because it would test below the maximum contaminant concentration for toxicity characteristic for tetrachloroethylene of 0.7 mg/L.

When appropriate give Toxicity Characteristic Leaching Procedure (TCLP) test results.

The attached laboratory reports show total VOC analysis of tetrachloroethylene in the soil at concentration ranging from below 10 ug/kg (ppb) to 5,100 ug/kg. Determining the total tetrachloroethylene concentration and dividing it by 20 can determine the maximum theoretical leachate concentration. So, the maximum theoretical leachate concentration of the same samples would range from below 10 ug/kg to 255 ug/kg. Therefore the waste is not a characteristic hazardous waste because it would test below the maximum contaminant concentration for toxicity characteristic for tetrachloroethylene of 0.7 mg/L.

Does the waste contain greater than 50 ppm of PCB's?

The soil was not directly tested for PCB content but based on the known history of the tetrachloroethylene assessment site PCB contamination in the waste soil above 50 ppm would seem unlikely.

Does the Waste contain greater than 200 ppm carcinogenic PAH's?

The soil was not directly tested for carcinogenic PAH's but based on the known history of the tetrachloroethylene assessment site carcinogenic PAH contamination in the waste soil above 200 ppm would seem unlikely.

United States Environmental Protection Agency

**Region 7 Laboratory
25 Funston Road
Kansas City, KS 66115**

Date: 11/6/2002

Subject: Transmittal of Sample Analysis Results for ASR #: 1659

Activity Number: JRMAWS

Activity Description: Atlantic Water Supply - RA/SE sampling

From: Michael Thomas, Associate Laboratory Director *M. Thomas*
Regional Laboratory, Environmental Services Division

To: Jim MacDonald

SUPR/ER&R

This is the sample analysis results transmittal for the above-referenced Analytical Services Request (ASR). The data contained in this transmittal have been approved by the Regional Laboratory. This transmittal contains all of the sample analysis results for this ASR. The Regional Laboratory should be notified within 14 days if any changes are needed to the contents of this report. If you have any questions, comments or data changes, please contact the Laboratory Customer Service Department at 913-551-5295.

cc: Analytical Data File

11/6/2002

Activity Leader: MacDonald, Jim

Org: SUPR/ER&R

Phone: (913) 551-7767

Activity Number: JRMAWS

Activity Desc: Atlantic Water Supply - RA/SE sampling

Location: Atlantic

State: Iowa

Type: Superfund/Oil

Superfund Name: Multi-Site - General

Site ID: 07ZZ Site OU: 00

Purpose: Site characterization

Explanation of Codes, Units and Qualifiers used on this report.**Sample QC Codes:** QC Codes identify the type of sample for quality control

— = Field Sample
FB = Field Blank
FD = Field Duplicate

Units: Specific units in which results are reported.

Deg C = Degrees Celsius
SU = Standard Units (pH)
ug/kg = Micrograms per Kilogram
ug/L = Micrograms per Liter
umhos/c = Micromhos per Centimeter

Data Qualifiers: Specific codes used in conjunction with data values to provide additional information on the quality of reported results, or used to explain the absence of a specific value.

(Blank) = Values have been reviewed and found acceptable for use.

I = Invalid sample/data - Value not reported.

J = The associated numerical value is an estimated quantity.

U = Not detected at or above the reportable level shown.

Activity Number: JRMAWS

ASR Number: 1659

Sample Information Summary

Activity Desc: Atlantic Water Supply - RA/SE sampling

11/6/2002

Sample Number	QC Code	Matrix	Location	External Sample No.	Start Date	Start Time	End Date	End Time	Receipt Date
1 -		Soil	GP-12 (11-12')		09/16/2002	16:26			09/19/2002
2 -		Soil	GP-12 (21.5-22.5')		09/16/2002	17:01			09/19/2002
3 -		Soil	GP-2 (17-20' from 19-20')		09/17/2002	10:10			09/19/2002
4 -		Soil	GP-2 (27-30' from 28-29')		09/17/2002	12:30			09/19/2002
5 -		Soil	GP-1 (19-22' from 21-22')		09/17/2002	15:55			09/19/2002
6 -		Soil	GP-1 (8-12' from 9-10')		09/17/2002	16:18			09/19/2002
7 -		Soil	MW-2 at 9'		09/17/2002	17:30			09/19/2002
8 -		Soil	MW-1 at 19'		09/17/2002	9:45			09/19/2002
9 -		Soil	MW-1 at 27.5f		09/17/2002	10:45			09/19/2002
10 -		Soil	MW-2 at 19'		09/17/2002	18:00			09/19/2002
11 -		Soil	GP-9 (8-12' to 9-10')		09/18/2002	9:13			09/19/2002
12 -		Soil	GP-9 (20-23' to 21-22')		09/18/2002	9:59			09/19/2002
13 -		Soil	MW-2 (28')		09/18/2002	10:30			09/19/2002
14 -		Soil	MW-2 (36')		09/18/2002	11:15			09/19/2002
14 -FD		Soil	MW-2 (36')/Field Duplicate of sample 14		09/18/2002	11:15			09/19/2002
15 -		Soil	GP-11 (8-12'; 9-10')		09/18/2002	13:24			09/20/2002
16 -		Soil	GP-11 (28-31' @ 30')		09/18/2002	15:40			09/20/2002
17 -		Soil	GP-10 (3-7'; 4-5')		09/19/2002	7:54			09/20/2002
18 -		Soil	GP-10 (28-31'; 28-29')		09/19/2002	9:38			09/20/2002
19 -		Soil	GP-8 (8-12'; 9-10')		09/19/2002	11:14			09/20/2002
20 -		Soil	GP-8 (32-35'; 32-33')		09/19/2002	13:58			09/20/2002
21 -		Soil	MW-3 @ 13'		09/19/2002	10:40			09/20/2002
22 -		Soil	MW-3 @ 28'		09/19/2002	12:39			09/20/2002
23 -		Soil	Edwards/RH Bank and Trust property/GP-7 (14-15')		10/07/2002	16:16			10/10/2002
24 -		Soil	Edwards/RH Bank and Trust property/GP-7 (33.5-34')		10/07/2002	18:30			10/10/2002
25 -		Soil	Edwards/RH Bank and Trust property/GP-6 (18-18.5')		10/08/2002	9:05			10/10/2002
26 -		Soil	Edwards/RH Bank and Trust property/GP-6 (33-34')		10/08/2002	10:55			10/10/2002
27 -		Soil	Edwards property/RH Bank and Trust property/GP-3 (20-21')		10/08/2002	13:29			10/10/2002
27 -FD		Soil	Edwards property/GP-3 (20-21')		10/08/2002	13:29			10/10/2002
28 -		Soil	Edwards property/RH Bank and Trust property/GP-3 (34-35')		10/08/2002	14:55			10/10/2002
29 -		Soil	Edwards property/RH Bank and Trust property/GP-4 (22')		10/08/2002	16:34			10/10/2002
30 -		Soil	Edwards property/GP-4 (34.5-35')		10/08/2002	17:54			10/10/2002
31 -		Soil	Edwards property/RH Bank and Trust property/GP-5 (14-14.5')		10/09/2002	8:35			10/10/2002
32 -		Soil	Edwards property/GP-5 (35.5-36')		10/09/2002	10:57			10/10/2002
33 -		Soil	Green/ASC, Inc. property/GP-13 (7-8')		10/09/2002	12:25			10/10/2002
34 -		Soil	Green/ASC, Inc. property/GP-13 (34.5-35.5')		10/09/2002	15:20			10/10/2002
35 -FB		Soil	5035 Soil VOA Trip Blank sample		10/09/2002				10/10/2002
41 -FB		Soil	5035 soil VOA Trip Blank sample 1		09/18/2002	14:30			09/20/2002
42 -FB		Soil	5035 soil VOA Trip Blank sample 2		09/19/2002				09/20/2002

101 - __	Water	Reischl property/MW-3 sample by trailer park	10/10/2002	9:00	10/10/2002
102 - __	Water	Glissman/Simmonds Properties LTD sample/MW-1 (B. King parking lot, N of Bldg. in corner)	10/10/2002	10:10	10/10/2002
103 - __	Water	Edwards/RH Bank and Trust property/MW-2 (Parking area)	10/10/2002	11:05	10/10/2002
103 - FD	Water	Edwards/RH Bank and Trust property/Field Duplicate of sample 103	10/10/2002	11:05	10/10/2002
104 - FB	Water	LDL VOA Field Blank sample	10/10/2002	9:10	10/10/2002
105 - FB	Water	LDL VOA Trip Blank sample	10/03/2002	7:50	10/10/2002

Analysis	Comments About Results For This Analysis
VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap	
Samples —7, -10, -13, -14, and —14FD were analyzed by the medium level protocol due to high levels of tetrachloroethene and, therefore, the reporting limits are 125 times higher.	
Tetrachloroethene was J-coded in sample -7 because it was quantitated below the level of the lowest calibration standard.	
Acetone was J-coded in samples -1, -3, -6, and -21. Although the analyte in question has been positively identified in the samples, the quantitations are estimates (J-coded) due to the initial instrument calibration curve not meeting linearity specifications.	
Results for 1,2-dibromo-3-chloropropane in samples -1, -2, -3, -4, -5, -6, -8, -9, -11, -12, -15, -16, -17, -18, and -41FB were invalidated due to unacceptably low initial calibration relative response factors (RRFs).	
Acetone was J-coded in samples -8 and -21. Although the analyte in question has been positively identified in the samples, the quantitations are estimates (J-coded) due to the daily instrument calibration not meeting accuracy specifications. The actual concentration for this analyte may be as much as 37% higher in sample -8 and 26% lower in sample -21 than the reported values.	
Slight acetone contamination was found in the laboratory method blanks. Only samples containing this compound at a level greater than ten times the contamination level of the blank are reported without being qualified. All samples that contained this compound but at a level less than ten times the contamination in the blank have the result "U-coded" indicating the method reporting limit has been raised to the level found in the sample. Samples affected were: -2, -5, -11, -12, -14, -15, -16, -17, and -19.	
VOCs in Water by GC/MS for Low Detection Limits	
Slight acetone contamination was found in the laboratory method blank. Only samples containing this compound at a level greater than ten times the contamination level of the blank are reported without being qualified. All samples that contained this compound but at a level less than ten times the contamination in the blank have the result "U-coded" indicating the method reporting limit has been raised to the level found in the sample. Samples affected were: acetone in -101, -104FB, and -105FB.	
2-butanone was J-coded in sample -105FB. Although the analyte in question has been positively identified in the sample, the quantitation is an estimate (J-coded) due to the daily instrument calibration not meeting accuracy specifications. The actual concentration for this analyte may be as much as 55% lower than the reported value.	

Analysis / Analyte	Units	1-	2-	3-	4-
VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	35 J	18 U	48 J	14 U
Benzene	ug/kg	10 U	12 U	12 U	14 U
Bromodichloromethane	ug/kg	10 U	12 U	12 U	14 U
Bromoform	ug/kg	10 U	12 U	12 U	14 U
Bromomethane	ug/kg	10 U	12 U	12 U	14 U
2-Butanone	ug/kg	10 U	12 U	12 U	14 U
Carbon Disulfide	ug/kg	10 U	12 U	12 U	14 U
Carbon Tetrachloride	ug/kg	10 U	12 U	12 U	14 U
Chlorobenzene	ug/kg	10 U	12 U	12 U	14 U
Chloroethane	ug/kg	10 U	12 U	12 U	14 U
Chloroform	ug/kg	10 U	12 U	12 U	14 U
Chloromethane	ug/kg	10 U	12 U	12 U	14 U
Cyclohexane	ug/kg	10 U	12 U	12 U	14 U
1,2-Dibromo-3-Chloropropane	ug/kg	N/A I	N/A I	N/A I	N/A I
Dibromochloromethane	ug/kg	10 U	12 U	12 U	14 U
1,2-Dibromoethane	ug/kg	10 U	12 U	12 U	14 U
1,2-Dichlorobenzene	ug/kg	10 U	12 U	12 U	14 U
1,3-Dichlorobenzene	ug/kg	10 U	12 U	12 U	14 U
1,4-Dichlorobenzene	ug/kg	10 U	12 U	12 U	14 U
Dichlorodifluoromethane	ug/kg	10 U	12 U	12 U	14 U
1,1-Dichloroethane	ug/kg	10 U	12 U	12 U	14 U
1,2-Dichloroethane	ug/kg	10 U	12 U	12 U	14 U
1,1-Dichloroethene	ug/kg	10 U	12 U	12 U	14 U
cis-1,2-Dichloroethene	ug/kg	10 U	12 U	12 U	14 U
trans-1,2-Dichloroethene	ug/kg	10 U	12 U	12 U	14 U
1,2-Dichloropropane	ug/kg	10 U	12 U	12 U	14 U
cis-1,3-Dichloropropene	ug/kg	10 U	12 U	12 U	14 U
trans-1,3-Dichloropropene	ug/kg	10 U	12 U	12 U	14 U
Ethyl Benzene	ug/kg	10 U	12 U	12 U	14 U
2-Hexanone	ug/kg	10 U	12 U	12 U	14 U
Isopropylbenzene	ug/kg	10 U	12 U	12 U	14 U
Methyl Acetate	ug/kg	10 U	12 U	12 U	14 U
Methyl tert-butyl ether	ug/kg	10 U	12 U	12 U	14 U
Methylcyclohexane	ug/kg	10 U	12 U	12 U	14 U
Methylene Chloride	ug/kg	10 U	12 U	12 U	14 U
4-Methyl-2-Pentanone	ug/kg	10 U	12 U	12 U	14 U
Styrene	ug/kg	10 U	12 U	12 U	14 U
1,1,2,2-Tetrachloroethane	ug/kg	10 U	12 U	12 U	14 U
Tetrachloroethene	ug/kg	10 U	12 U	12 U	14 U
Toluene	ug/kg	10 U	12 U	12 U	14 U
1,2,4-Trichlorobenzene	ug/kg	10 U	12 U	12 U	14 U
1,1,1-Trichloroethane	ug/kg	10 U	12 U	12 U	14 U
1,1,2-Trichloroethane	ug/kg	10 U	12 U	12 U	14 U
Trichloroethene	ug/kg	10 U	12 U	12 U	14 U
Trichlorofluoromethane	ug/kg	10 U	12 U	12 U	14 U
1,1,2-Trichlorotrifluoroethane	ug/kg	10 U	12 U	12 U	14 U
Vinyl Chloride	ug/kg	10 U	12 U	12 U	14 U
total Xylene	ug/kg	10 U	12 U	12 U	14 U

Analysis / Analyte	Units	5-	6-	7-	8-
VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	23 U	120 J	1700 U	54 J
Benzene	ug/kg	11 U	13 U	1700 U	11 U
Bromodichloromethane	ug/kg	11 U	13 U	1700 U	11 U
Bromoform	ug/kg	11 U	13 U	1700 U	11 U
Bromomethane	ug/kg	11 U	13 U	1700 U	11 U
2-Butanone	ug/kg	11 U	15	1700 U	11 U
Carbon Disulfide	ug/kg	11 U	13 U	1700 U	11 U
Carbon Tetrachloride	ug/kg	11 U	13 U	1700 U	11 U
Chlorobenzene	ug/kg	11 U	13 U	1700 U	11 U
Chloroethane	ug/kg	11 U	13 U	1700 U	11 U
Chloroform	ug/kg	11 U	13 U	1700 U	11 U
Chloromethane	ug/kg	11 U	13 U	1700 U	11 U
Cyclohexane	ug/kg	11 U	13 U	1700 U	11 U
1,2-Dibromo-3-Chloropropane	ug/kg	N/A I	N/A I	1700 U	N/A I
Dibromochloromethane	ug/kg	11 U	13 U	1700 U	11 U
1,2-Dibromoethane	ug/kg	11 U	13 U	1700 U	11 U
1,2-Dichlorobenzene	ug/kg	11 U	13 U	1700 U	11 U
1,3-Dichlorobenzene	ug/kg	11 U	13 U	1700 U	11 U
1,4-Dichlorobenzene	ug/kg	11 U	13 U	1700 U	11 U
Dichlorodifluoromethane	ug/kg	11 U	13 U	1700 U	11 U
1,1-Dichloroethane	ug/kg	11 U	13 U	1700 U	11 U
1,2-Dichloroethane	ug/kg	11 U	13 U	1700 U	11 U
1,1-Dichloroethene	ug/kg	11 U	13 U	1700 U	11 U
cis-1,2-Dichloroethene	ug/kg	11 U	13 U	1700 U	11 U
trans-1,2-Dichloroethene	ug/kg	11 U	13 U	1700 U	11 U
1,2-Dichloropropane	ug/kg	11 U	13 U	1700 U	11 U
cis-1,3-Dichloropropene	ug/kg	11 U	13 U	1700 U	11 U
trans-1,3-Dichloropropene	ug/kg	11 U	13 U	1700 U	11 U
Ethyl Benzene	ug/kg	11 U	13 U	1700 U	11 U
2-Hexanone	ug/kg	11 U	13 U	1700 U	11 U
Isopropylbenzene	ug/kg	11 U	13 U	1700 U	11 U
Methyl Acetate	ug/kg	11 U	13 U	1700 U	11 U
Methyl tert-butyl ether	ug/kg	11 U	13 U	1700 U	11 U
Methylcyclohexane	ug/kg	11 U	13 U	1700 U	11 U
Methylene Chloride	ug/kg	11 U	13 U	1700 U	11 U
4-Methyl-2-Pentanone	ug/kg	11 U	13 U	1700 U	11 U
Styrene	ug/kg	11 U	13 U	1700 U	11 U
1,1,2,2-Tetrachloroethane	ug/kg	11 U	13 U	1700 U	11 U
Tetrachloroethene	ug/kg	37	23	930 J	11 U
Toluene	ug/kg	11 U	13 U	1700 U	11 U
1,2,4-Trichlorobenzene	ug/kg	11 U	13 U	1700 U	11 U
1,1,1-Trichloroethane	ug/kg	11 U	13 U	1700 U	11 U
1,1,2-Trichloroethane	ug/kg	11 U	13 U	1700 U	11 U
Trichloroethene	ug/kg	11 U	13 U	1700 U	11 U
Trichlorofluoromethane	ug/kg	11 U	13 U	1700 U	11 U
1,1,2-Trichlorotrifluoroethane	ug/kg	11 U	13 U	1700 U	11 U
Vinyl Chloride	ug/kg	11 U	13 U	1700 U	11 U
total Xylene	ug/kg	11 U	13 U	1700 U	11 U

Analysis / Analyte	Units	9-	10-	11-	12-
VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	12 U	1500 U	18 U	26 U
Benzene	ug/kg	12 U	1500 U	11 U	13 U
Bromodichloromethane	ug/kg	12 U	1500 U	11 U	13 U
Bromoform	ug/kg	12 U	1500 U	11 U	13 U
Bromomethane	ug/kg	12 U	1500 U	11 U	13 U
2-Butanone	ug/kg	12 U	1500 U	11 U	13 U
Carbon Disulfide	ug/kg	12 U	1500 U	11 U	13 U
Carbon Tetrachloride	ug/kg	12 U	1500 U	11 U	13 U
Chlorobenzene	ug/kg	12 U	1500 U	11 U	13 U
Chloroethane	ug/kg	12 U	1500 U	11 U	13 U
Chloroform	ug/kg	12 U	1500 U	11 U	13 U
Chloromethane	ug/kg	12 U	1500 U	11 U	13 U
Cyclohexane	ug/kg	12 U	1500 U	11 U	13 U
1,2-Dibromo-3-Chloropropane	ug/kg	N/A I	1500 U	N/A I	N/A I
Dibromochloromethane	ug/kg	12 U	1500 U	11 U	13 U
1,2-Dibromoethane	ug/kg	12 U	1500 U	11 U	13 U
1,2-Dichlorobenzene	ug/kg	12 U	1500 U	11 U	13 U
1,3-Dichlorobenzene	ug/kg	12 U	1500 U	11 U	13 U
1,4-Dichlorobenzene	ug/kg	12 U	1500 U	11 U	13 U
Dichlorodifluoromethane	ug/kg	12 U	1500 U	11 U	13 U
1,1-Dichloroethane	ug/kg	12 U	1500 U	11 U	13 U
1,2-Dichloroethane	ug/kg	12 U	1500 U	11 U	13 U
1,1-Dichloroethéne	ug/kg	12 U	1500 U	11 U	13 U
cis-1,2-Dichloroethene	ug/kg	12 U	1500 U	11 U	13 U
trans-1,2-Dichloroethene	ug/kg	12 U	1500 U	11 U	13 U
1,2-Dichloropropane	ug/kg	12 U	1500 U	11 U	13 U
cis-1,3-Dichloropropene	ug/kg	12 U	1500 U	11 U	13 U
trans-1,3-Dichloropropene	ug/kg	12 U	1500 U	11 U	13 U
Ethyl Benzene	ug/kg	12 U	1500 U	11 U	13 U
2-Hexanone	ug/kg	12 U	1500 U	11 U	13 U
Isopropylbenzene	ug/kg	12 U	1500 U	11 U	13 U
Methyl Acetate	ug/kg	12 U	1500 U	11 U	13 U
Methyl tert-butyl ether	ug/kg	12 U	1500 U	11 U	13 U
Methylcyclohexane	ug/kg	12 U	1500 U	11 U	13 U
Methylene Chloride	ug/kg	12 U	1500 U	11 U	13 U
4-Methyl-2-Pentanone	ug/kg	12 U	1500 U	11 U	13 U
Styrene	ug/kg	12 U	1500 U	11 U	13 U
1,1,2,2-Tetrachloroethane	ug/kg	12 U	1500 U	11 U	13 U
Tetrachloroethene	ug/kg	12 U	4600	11 U	13 U
Toluene	ug/kg	12 U	1500 U	11 U	13 U
1,2,4-Trichlorobenzene	ug/kg	12 U	1500 U	11 U	13 U
1,1,1-Trichloroethane	ug/kg	12 U	1500 U	11 U	13 U
1,1,2-Trichloroethane	ug/kg	12 U	1500 U	11 U	13 U
Trichloroethene	ug/kg	12 U	1500 U	11 U	13 U
Trichlorofluoromethane	ug/kg	12 U	1500 U	11 U	13 U
1,1,2-Trichlorotrifluoroethane	ug/kg	12 U	1500 U	11 U	13 U
Vinyl Chloride	ug/kg	12 U	1500 U	11 U	13 U
total Xylene	ug/kg	12 U	1500 U	11 U	13 U

Analysis / Analyte	Units	13-__	14-__	14-FD	15-__
VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	1500 U	1800 U	1500 U	28 U
Benzene	ug/kg	1500 U	1500 U	1500 U	13 U
Bromodichloromethane	ug/kg	1500 U	1500 U	1500 U	13 U
Bromoform	ug/kg	1500 U	1500 U	1500 U	13 U
Bromomethane	ug/kg	1500 U	1500 U	1500 U	13 U
2-Butanone	ug/kg	1500 U	1500 U	1500 U	13 U
Carbon Disulfide	ug/kg	1500 U	1500 U	1500 U	13 U
Carbon Tetrachloride	ug/kg	1500 U	1500 U	1500 U	13 U
Chlorobenzene	ug/kg	1500 U	1500 U	1500 U	13 U
Chloroethane	ug/kg	1500 U	1500 U	1500 U	13 U
Chloroform	ug/kg	1500 U	1500 U	1500 U	13 U
Chloromethane	ug/kg	1500 U	1500 U	1500 U	13 U
Cyclohexane	ug/kg	1500 U	1500 U	1500 U	13 U
1,2-Dibromo-3-Chloropropane	ug/kg	1500 U	1500 U	1500 U	N/A I
Dibromochloromethane	ug/kg	1500 U	1500 U	1500 U	13 U
1,2-Dibromoethane	ug/kg	1500 U	1500 U	1500 U	13 U
1,2-Dichlorobenzene	ug/kg	1500 U	1500 U	1500 U	13 U
1,3-Dichlorobenzene	ug/kg	1500 U	1500 U	1500 U	13 U
1,4-Dichlorobenzene	ug/kg	1500 U	1500 U	1500 U	13 U
Dichlorodifluoromethane	ug/kg	1500 U	1500 U	1500 U	13 U
1,1-Dichloroethane	ug/kg	1500 U	1500 U	1500 U	13 U
1,2-Dichloroethane	ug/kg	1500 U	1500 U	1500 U	13 U
1,1-Dichloroethéne	ug/kg	1500 U	1500 U	1500 U	13 U
cis-1,2-Dichloroethene	ug/kg	1500 U	1500 U	1500 U	13 U
trans-1,2-Dichloroethene	ug/kg	1500 U	1500 U	1500 U	13 U
1,2-Dichloropropane	ug/kg	1500 U	1500 U	1500 U	13 U
cis-1,3-Dichloropropene	ug/kg	1500 U	1500 U	1500 U	13 U
trans-1,3-Dichloropropene	ug/kg	1500 U	1500 U	1500 U	13 U
Ethyl Benzene	ug/kg	1500 U	1500 U	1500 U	13 U
2-Hexanone	ug/kg	1500 U	1500 U	1500 U	13 U
Isopropylbenzene	ug/kg	1500 U	1500 U	1500 U	13 U
Methyl Acetate	ug/kg	1500 U	1500 U	1500 U	13 U
Methyl tert-butyl ether	ug/kg	1500 U	1500 U	1500 U	13 U
Methylcyclohexane	ug/kg	1500 U	1500 U	1500 U	13 U
Methylene Chloride	ug/kg	1500 U	1500 U	1500 U	13 U
4-Methyl-2-Pentanone	ug/kg	1500 U	1500 U	1500 U	13 U
Styrene	ug/kg	1500 U	1500 U	1500 U	13 U
1,1,2,2-Tetrachloroethane	ug/kg	1500 U	1500 U	1500 U	13 U
Tetrachloroethene	ug/kg	5100	5000	5200	13 U
Toluene	ug/kg	1500 U	1500 U	1500 U	13 U
1,2,4-Trichlorobenzene	ug/kg	1500 U	1500 U	1500 U	13 U
1,1,1-Trichloroethane	ug/kg	1500 U	1500 U	1500 U	13 U
1,1,2-Trichloroethane	ug/kg	1500 U	1500 U	1500 U	13 U
Trichloroethene	ug/kg	1500 U	1500 U	1500 U	13 U
Trichlorofluoromethane	ug/kg	1500 U	1500 U	1500 U	13 U
1,1,2-Trichlorotrifluoroethane	ug/kg	1500 U	1500 U	1500 U	13 U
Vinyl Chloride	ug/kg	1500 U	1500 U	1500 U	13 U
total Xylene	ug/kg	1500 U	1500 U	1500 U	13 U

Analysis / Analyte	Units	16-	17-	18-	19-
VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	11 U	24 U	11 U	12 U
Benzene	ug/kg	10 U	13 U	11 U	11 U
Bromodichloromethane	ug/kg	10 U	13 U	11 U	11 U
Bromoform	ug/kg	10 U	13 U	11 U	11 U
Bromomethane	ug/kg	10 U	13 U	11 U	11 U
2-Butanone	ug/kg	10 U	13 U	11 U	11 U
Carbon Disulfide	ug/kg	10 U	13 U	11 U	11 U
Carbon Tetrachloride	ug/kg	10 U	13 U	11 U	11 U
Chlorobenzene	ug/kg	10 U	13 U	11 U	11 U
Chloroethane	ug/kg	10 U	13 U	11 U	11 U
Chloroform	ug/kg	10 U	13 U	11 U	11 U
Chloromethane	ug/kg	10 U	13 U	11 U	11 U
Cyclohexane	ug/kg	10 U	13 U	11 U	11 U
1,2-Dibromo-3-Chloropropane	ug/kg	N/A I	N/A I	N/A I	11 U
Dibromochloromethane	ug/kg	10 U	13 U	11 U	11 U
1,2-Dibromoethane	ug/kg	10 U	13 U	11 U	11 U
1,2-Dichlorobenzene	ug/kg	10 U	13 U	11 U	11 U
1,3-Dichlorobenzene	ug/kg	10 U	13 U	11 U	11 U
1,4-Dichlorobenzene	ug/kg	10 U	13 U	11 U	11 U
Dichlorodifluoromethane	ug/kg	10 U	13 U	11 U	11 U
1,1-Dichloroethane	ug/kg	10 U	13 U	11 U	11 U
1,2-Dichloroethane	ug/kg	10 U	13 U	11 U	11 U
1,1-Dichloroethene	ug/kg	10 U	13 U	11 U	11 U
cis-1,2-Dichloroethene	ug/kg	10 U	13 U	11 U	11 U
trans-1,2-Dichloroethene	ug/kg	10 U	13 U	11 U	11 U
1,2-Dichloropropane	ug/kg	10 U	13 U	11 U	11 U
cis-1,3-Dichloropropene	ug/kg	10 U	13 U	11 U	11 U
trans-1,3-Dichloropropene	ug/kg	10 U	13 U	11 U	11 U
Ethyl Benzene	ug/kg	10 U	13 U	11 U	11 U
2-Hexanone	ug/kg	10 U	13 U	11 U	11 U
Isopropylbenzene	ug/kg	10 U	13 U	11 U	11 U
Methyl Acetate	ug/kg	10 U	13 U	11 U	11 U
Methyl tert-butyl ether	ug/kg	10 U	13 U	11 U	11 U
Methylcyclohexane	ug/kg	10 U	13 U	11 U	11 U
Methylene Chloride	ug/kg	10 U	13 U	11 U	11 U
4-Methyl-2-Pentanone	ug/kg	10 U	13 U	11 U	11 U
Styrene	ug/kg	10 U	13 U	11 U	11 U
1,1,2,2-Tetrachloroethane	ug/kg	10 U	13 U	11 U	11 U
Tetrachloroethene	ug/kg	10 U	13 U	11 U	11 U
Toluene	ug/kg	10 U	13 U	11 U	11 U
1,2,4-Trichlorobenzene	ug/kg	10 U	13 U	11 U	11 U
1,1,1-Trichloroethane	ug/kg	10 U	13 U	11 U	11 U
1,1,2-Trichloroethane	ug/kg	10 U	13 U	11 U	11 U
Trichloroethene	ug/kg	10 U	13 U	11 U	11 U
Trichlorofluoromethane	ug/kg	10 U	13 U	11 U	11 U
1,1,2-Trichlorotrifluoroethane	ug/kg	10 U	13 U	11 U	11 U
Vinyl Chloride	ug/kg	10 U	13 U	11 U	11 U
total Xylene	ug/kg	10 U	13 U	11 U	11 U

Analysis / Analyte	Units	20-	21-	22-	23-
VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	11 U	25 J	14 U	81
Benzene	ug/kg	11 U	12 U	14 U	13 U
Bromodichloromethane	ug/kg	11 U	12 U	14 U	13 U
Bromoform	ug/kg	11 U	12 U	14 U	13 U
Bromomethane	ug/kg	11 U	12 U	14 U	13 U
2-Butanone	ug/kg	11 U	12 U	14 U	15
Carbon Disulfide	ug/kg	11 U	12 U	14 U	13 U
Carbon Tetrachloride	ug/kg	11 U	12 U	14 U	13 U
Chlorobenzene	ug/kg	11 U	12 U	14 U	13 U
Chloroethane	ug/kg	11 U	12 U	14 U	13 U
Chloroform	ug/kg	11 U	12 U	14 U	13 U
Chloromethane	ug/kg	11 U	12 U	14 U	13 U
Cyclohexane	ug/kg	11 U	12 U	14 U	13 U
1,2-Dibromo-3-Chloropropane	ug/kg	11 U	12 U	14 U	13 U
Dibromochloromethane	ug/kg	11 U	12 U	14 U	13 U
1,2-Dibromoethane	ug/kg	11 U	12 U	14 U	13 U
1,2-Dichlorobenzene	ug/kg	11 U	12 U	14 U	13 U
1,3-Dichlorobenzene	ug/kg	11 U	12 U	14 U	13 U
1,4-Dichlorobenzene	ug/kg	11 U	12 U	14 U	13 U
Dichlorodifluoromethane	ug/kg	11 U	12 U	14 U	13 U
1,1-Dichloroethane	ug/kg	11 U	12 U	14 U	13 U
1,2-Dichloroethane	ug/kg	11 U	12 U	14 U	13 U
1,1-Dichloroethene	ug/kg	11 U	12 U	14 U	13 U
cis-1,2-Dichloroethene	ug/kg	11 U	12 U	14 U	13 U
trans-1,2-Dichloroethene	ug/kg	11 U	12 U	14 U	13 U
1,2-Dichloropropane	ug/kg	11 U	12 U	14 U	13 U
cis-1,3-Dichloropropene	ug/kg	11 U	12 U	14 U	13 U
trans-1,3-Dichloropropene	ug/kg	11 U	12 U	14 U	13 U
Ethyl Benzene	ug/kg	11 U	12 U	14 U	13 U
2-Hexanone	ug/kg	11 U	12 U	14 U	13 U
Isopropylbenzene	ug/kg	11 U	12 U	14 U	13 U
Methyl Acetate	ug/kg	11 U	12 U	14 U	13 U
Methyl tert-butyl ether	ug/kg	11 U	12 U	14 U	13 U
Methylcyclohexane	ug/kg	11 U	12 U	14 U	13 U
Methylene Chloride	ug/kg	11 U	12 U	14 U	13 U
4-Methyl-2-Pentanone	ug/kg	11 U	12 U	14 U	13 U
Styrene	ug/kg	11 U	12 U	14 U	13 U
1,1,2,2-Tetrachloroethane	ug/kg	11 U	12 U	14 U	13 U
Tetrachloroethene	ug/kg	11 U	12 U	14 U	13 U
Toluene	ug/kg	11 U	12 U	14 U	13 U
1,2,4-Trichlorobenzene	ug/kg	11 U	12 U	14 U	13 U
1,1,1-Trichloroethane	ug/kg	11 U	12 U	14 U	13 U
1,1,2-Trichloroethane	ug/kg	11 U	12 U	14 U	13 U
Trichloroethene	ug/kg	11 U	12 U	14 U	13 U
Trichlorofluoromethane	ug/kg	11 U	12 U	14 U	13 U
1,1,2-Trichlorotrifluoroethane	ug/kg	11 U	12 U	14 U	13 U
Vinyl Chloride	ug/kg	11 U	12 U	14 U	13 U
total Xylene	ug/kg	11 U	12 U	14 U	13 U

Analysis / Analyte	Units	24-	25-	26-	27-
VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	11 U	94	51	35
Benzene	ug/kg	11 U	14 U	10 U	11 U
Bromodichloromethane	ug/kg	11 U	14 U	10 U	11 U
Bromoform	ug/kg	11 U	14 U	10 U	11 U
Bromomethane	ug/kg	11 U	14 U	10 U	11 U
2-Butanone	ug/kg	11 U	17	10 U	11 U
Carbon Disulfide	ug/kg	11 U	14 U	10 U	11 U
Carbon Tetrachloride	ug/kg	11 U	14 U	10 U	11 U
Chlorobenzene	ug/kg	11 U	14 U	10 U	11 U
Chloroethane	ug/kg	11 U	14 U	10 U	11 U
Chloroform	ug/kg	11 U	14 U	10 U	11 U
Chloromethane	ug/kg	11 U	14 U	10 U	11 U
Cyclohexane	ug/kg	11 U	14 U	10 U	11 U
1,2-Dibromo-3-Chloropropane	ug/kg	11 U	14 U	10 U	11 U
Dibromochloromethane	ug/kg	11 U	14 U	10 U	11 U
1,2-Dibromoethane	ug/kg	11 U	14 U	10 U	11 U
1,2-Dichlorobenzene	ug/kg	11 U	14 U	10 U	11 U
1,3-Dichlorobenzene	ug/kg	11 U	14 U	10 U	11 U
1,4-Dichlorobenzene	ug/kg	11 U	14 U	10 U	11 U
Dichlorodifluoromethane	ug/kg	11 U	14 U	10 U	11 U
1,1-Dichloroethane	ug/kg	11 U	14 U	10 U	11 U
1,2-Dichloroethane	ug/kg	11 U	14 U	10 U	11 U
1,1-Dichloroethene	ug/kg	11 U	14 U	10 U	11 U
cis-1,2-Dichloroethene	ug/kg	11 U	14 U	10 U	11 U
trans-1,2-Dichloroethene	ug/kg	11 U	14 U	10 U	11 U
1,2-Dichloropropane	ug/kg	11 U	14 U	10 U	11 U
cis-1,3-Dichloropropene	ug/kg	11 U	14 U	10 U	11 U
trans-1,3-Dichloropropene	ug/kg	11 U	14 U	10 U	11 U
Ethyl Benzene	ug/kg	11 U	14 U	10 U	11 U
2-Hexanone	ug/kg	11 U	14 U	10 U	11 U
Isopropylbenzene	ug/kg	11 U	14 U	10 U	11 U
Methyl Acetate	ug/kg	11 U	14 U	10 U	11 U
Methyl tert-butyl ether	ug/kg	11 U	14 U	10 U	11 U
Methylcyclohexane	ug/kg	11 U	14 U	10 U	11 U
Methylene Chloride	ug/kg	11 U	14 U	10 U	11 U
4-Methyl-2-Pentanone	ug/kg	11 U	14 U	10 U	11 U
Styrene	ug/kg	11 U	14 U	10 U	11 U
1,1,2,2-Tetrachloroethane	ug/kg	11 U	14 U	10 U	11 U
Tetrachloroethene	ug/kg	11 U	14 U	10 U	11 U
Toluene	ug/kg	11 U	14 U	10 U	11 U
1,2,4-Trichlorobenzene	ug/kg	11 U	14 U	10 U	11 U
1,1,1-Trichloroethane	ug/kg	11 U	14 U	10 U	11 U
1,1,2-Trichloroethane	ug/kg	11 U	14 U	10 U	11 U
Trichloroethene	ug/kg	11 U	14 U	10 U	11 U
Trichlorofluoromethane	ug/kg	11 U	14 U	10 U	11 U
1,1,2-Trichlorotrifluoroethane	ug/kg	11 U	14 U	10 U	11 U
Vinyl Chloride	ug/kg	11 U	14 U	10 U	11 U
total Xylene	ug/kg	11 U	14 U	10 U	11 U

Analysis / Analyte	Units	27-FD	28-	29-	30-
VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	60	16	140	51
Benzene	ug/kg	12 U	10 U	14 U	12 U
Bromodichloromethane	ug/kg	12 U	10 U	14 U	12 U
Bromoform	ug/kg	12 U	10 U	14 U	12 U
Bromomethane	ug/kg	12 U	10 U	14 U	12 U
2-Butanone	ug/kg	12 U	10 U	19	12 U
Carbon Disulfide	ug/kg	12 U	10 U	14 U	12 U
Carbon Tetrachloride	ug/kg	12 U	10 U	14 U	12 U
Chlorobenzene	ug/kg	12 U	10 U	14 U	12 U
Chloroethane	ug/kg	12 U	10 U	14 U	12 U
Chloroform	ug/kg	12 U	10 U	14 U	12 U
Chloromethane	ug/kg	12 U	10 U	14 U	12 U
Cyclohexane	ug/kg	12 U	10 U	14 U	12 U
1,2-Dibromo-3-Chloropropane	ug/kg	12 U	10 U	14 U	12 U
Dibromochloromethane	ug/kg	12 U	10 U	14 U	12 U
1,2-Dibromoethane	ug/kg	12 U	10 U	14 U	12 U
1,2-Dichlorobenzene	ug/kg	12 U	10 U	14 U	12 U
1,3-Dichlorobenzene	ug/kg	12 U	10 U	14 U	12 U
1,4-Dichlorobenzene	ug/kg	12 U	10 U	14 U	12 U
Dichlorodifluoromethane	ug/kg	12 U	10 U	14 U	12 U
1,1-Dichloroethane	ug/kg	12 U	10 U	14 U	12 U
1,2-Dichloroethane	ug/kg	12 U	10 U	14 U	12 U
1,1-Dichloroethene	ug/kg	12 U	10 U	14 U	12 U
cis-1,2-Dichloroethene	ug/kg	12 U	10 U	14 U	12 U
trans-1,2-Dichloroethene	ug/kg	12 U	10 U	14 U	12 U
1,2-Dichloropropene	ug/kg	12 U	10 U	14 U	12 U
cis-1,3-Dichloropropene	ug/kg	12 U	10 U	14 U	12 U
trans-1,3-Dichloropropene	ug/kg	12 U	10 U	14 U	12 U
Ethyl Benzene	ug/kg	12 U	10 U	14 U	12 U
2-Hexanone	ug/kg	12 U	10 U	14 U	12 U
Isopropylbenzene	ug/kg	12 U	10 U	14 U	12 U
Methyl Acetate	ug/kg	12 U	10 U	14 U	12 U
Methyl tert-butyl ether	ug/kg	12 U	10 U	14 U	12 U
Methylcyclohexane	ug/kg	12 U	10 U	14 U	12 U
Methylene Chloride	ug/kg	12 U	10 U	14 U	12 U
4-Methyl-2-Pentanone	ug/kg	12 U	10 U	14 U	12 U
Styrene	ug/kg	12 U	10 U	14 U	12 U
1,1,2,2-Tetrachloroethane	ug/kg	12 U	10 U	14 U	12 U
Tetrachloroethene	ug/kg	12 U	10 U	14 U	32
Toluene	ug/kg	12 U	10 U	14 U	12 U
1,2,4-Trichlorobenzene	ug/kg	12 U	10 U	14 U	12 U
1,1,1-Trichloroethane	ug/kg	12 U	10 U	14 U	12 U
1,1,2-Trichloroethane	ug/kg	12 U	10 U	14 U	12 U
Trichloroethene	ug/kg	12 U	10 U	14 U	12 U
Trichlorofluoromethane	ug/kg	12 U	10 U	14 U	12 U
1,1,2-Trichlorotrifluoroethane	ug/kg	12 U	10 U	14 U	12 U
Vinyl Chloride	ug/kg	12 U	10 U	14 U	12 U
total Xylene	ug/kg	12 U	10 U	14 U	12 U

Analysis / Analyte	Units	31-__	32-__	33-__	34-__
VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	30	13	35	32
Benzene	ug/kg	13 U	11 U	14 U	11 U
Bromodichloromethane	ug/kg	13 U	11 U	14 U	11 U
Bromoform	ug/kg	13 U	11 U	14 U	11 U
Bromomethane	ug/kg	13 U	11 U	14 U	11 U
2-Butanone	ug/kg	13 U	11 U	14 U	11 U
Carbon Disulfide	ug/kg	13 U	11 U	14 U	11 U
Carbon Tetrachloride	ug/kg	13 U	11 U	14 U	11 U
Chlorobenzene	ug/kg	13 U	11 U	14 U	11 U
Chloroethane	ug/kg	13 U	11 U	14 U	11 U
Chloroform	ug/kg	13 U	11 U	14 U	11 U
Chloromethane	ug/kg	13 U	11 U	14 U	11 U
Cyclohexane	ug/kg	13 U	11 U	14 U	11 U
1,2-Dibromo-3-Chloropropane	ug/kg	13 U	11 U	14 U	11 U
Dibromochloromethane	ug/kg	13 U	11 U	14 U	11 U
1,2-Dibromoethane	ug/kg	13 U	11 U	14 U	11 U
1,2-Dichlorobenzene	ug/kg	13 U	11 U	14 U	11 U
1,3-Dichlorobenzene	ug/kg	13 U	11 U	14 U	11 U
1,4-Dichlorobenzene	ug/kg	13 U	11 U	14 U	11 U
Dichlorodifluoromethane	ug/kg	13 U	11 U	14 U	11 U
1,1-Dichloroethane	ug/kg	13 U	11 U	14 U	11 U
1,2-Dichloroethane	ug/kg	13 U	11 U	14 U	11 U
1,1-Dichloroethene	ug/kg	13 U	11 U	14 U	11 U
cis-1,2-Dichloroethene	ug/kg	13 U	11 U	14 U	11 U
trans-1,2-Dichloroethene	ug/kg	13 U	11 U	14 U	11 U
1,2-Dichloropropane	ug/kg	13 U	11 U	14 U	11 U
cis-1,3-Dichloropropene	ug/kg	13 U	11 U	14 U	11 U
trans-1,3-Dichloropropene	ug/kg	13 U	11 U	14 U	11 U
Ethyl Benzene	ug/kg	13 U	11 U	14 U	11 U
2-Hexanone	ug/kg	13 U	11 U	14 U	11 U
Isopropylbenzene	ug/kg	13 U	11 U	14 U	11 U
Methyl Acetate	ug/kg	13 U	11 U	14 U	11 U
Methyl tert-butyl ether	ug/kg	13 U	11 U	14 U	11 U
Methylcyclohexane	ug/kg	13 U	11 U	14 U	11 U
Methylene Chloride	ug/kg	13 U	11 U	14 U	11 U
4-Methyl-2-Pentanone	ug/kg	13 U	11 U	14 U	11 U
Styrene	ug/kg	13 U	11 U	14 U	11 U
1,1,2,2-Tetrachloroethane	ug/kg	13 U	11 U	14 U	11 U
Tetrachloroethene	ug/kg	13 U	11 U	14 U	11 U
Toluene	ug/kg	13 U	11 U	14 U	11 U
1,2,4-Trichlorobenzene	ug/kg	13 U	11 U	14 U	11 U
1,1,1-Trichloroethane	ug/kg	13 U	11 U	14 U	11 U
1,1,2-Trichloroethane	ug/kg	13 U	11 U	14 U	11 U
Trichloroethene	ug/kg	13 U	11 U	14 U	11 U
Trichlorofluoromethane	ug/kg	13 U	11 U	14 U	11 U
1,1,2-Trichlorotrifluoroethane	ug/kg	13 U	11 U	14 U	11 U
Vinyl Chloride	ug/kg	13 U	11 U	14 U	11 U
total Xylene	ug/kg	13 U	11 U	14 U	11 U

Analysis / Analyte	Units	35-FB	41-FB	42-FB	101_-
VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	11 U	10 U	10 U	
Benzene	ug/kg	11 U	10 U	10 U	
Bromodichloromethane	ug/kg	11 U	10 U	10 U	
Bromoform	ug/kg	11 U	10 U	10 U	
Bromomethane	ug/kg	11 U	10 U	10 U	
2-Butanone	ug/kg	11 U	10 U	10 U	
Carbon Disulfide	ug/kg	11 U	10 U	10 U	
Carbon Tetrachloride	ug/kg	11 U	10 U	10 U	
Chlorobenzene	ug/kg	11 U	10 U	10 U	
Chloroethane	ug/kg	11 U	10 U	10 U	
Chloroform	ug/kg	11 U	10 U	10 U	
Chloromethane	ug/kg	11 U	10 U	10 U	
Cyclohexane	ug/kg	11 U	10 U	10 U	
1,2-Dibromo-3-Chloropropane	ug/kg	11 U	N/A I	10 U	
Dibromochloromethane	ug/kg	11 U	10 U	10 U	
1,2-Dibromoethane	ug/kg	11 U	10 U	10 U	
1,2-Dichlorobenzene	ug/kg	11 U	10 U	10 U	
1,3-Dichlorobenzene	ug/kg	11 U	10 U	10 U	
1,4-Dichlorobenzene	ug/kg	11 U	10 U	10 U	
Dichlorodifluoromethane	ug/kg	11 U	10 U	10 U	
1,1-Dichloroethane	ug/kg	11 U	10 U	10 U	
1,2-Dichloroethane	ug/kg	11 U	10 U	10 U	
1,1-Dichloroethene	ug/kg	11 U	10 U	10 U	
cis-1,2-Dichloroethene	ug/kg	11 U	10 U	10 U	
trans-1,2-Dichloroethene	ug/kg	11 U	10 U	10 U	
1,2-Dichloropropane	ug/kg	11 U	10 U	10 U	
cis-1,3-Dichloropropene	ug/kg	11 U	10 U	10 U	
trans-1,3-Dichloropropene	ug/kg	11 U	10 U	10 U	
Ethyl Benzene	ug/kg	11 U	10 U	10 U	
2-Hexanone	ug/kg	11 U	10 U	10 U	
Isopropylbenzene	ug/kg	11 U	10 U	10 U	
Methyl Acetate	ug/kg	11 U	10 U	10 U	
Methyl tert-butyl ether	ug/kg	11 U	10 U	10 U	
Methylcyclohexane	ug/kg	11 U	10 U	10 U	
Methylene Chloride	ug/kg	11 U	10 U	10 U	
4-Methyl-2-Pentanone	ug/kg	11 U	10 U	10 U	
Styrene	ug/kg	11 U	10 U	10 U	
1,1,2,2-Tetrachloroethane	ug/kg	11 U	10 U	10 U	
Tetrachloroethene	ug/kg	11 U	10 U	10 U	
Toluene	ug/kg	11 U	10 U	10 U	
1,2,4-Trichlorobenzene	ug/kg	11 U	10 U	10 U	
1,1,1-Trichloroethane	ug/kg	11 U	10 U	10 U	
1,1,2-Trichloroethane	ug/kg	11 U	10 U	10 U	
Trichloroethene	ug/kg	11 U	10 U	10 U	
Trichlorofluoromethane	ug/kg	11 U	10 U	10 U	
1,1,2-Trichlorotrifluoroethane	ug/kg	11 U	10 U	10 U	
Vinyl Chloride	ug/kg	11 U	10 U	10 U	
total Xylene	ug/kg	11 U	10 U	10 U	

Activity Number: JRMAWS

ASR Number: 1659

RLAB Approved Sample Analysis Results

Activity Desc: Atlantic Water Supply - RA/SE sampling

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Analysis / Analyte	Units	35-FB	41-FB	42-FB	101-__
Conductivity by Field Measurement					
Conductivity	umhos/c				0.937
pH of Water by Field Measurement					
pH	SU				6.77
Temperature of Water by Field Measurement					
Temperature	Deg C				11.1
VOCs in Water by GC/MS for Low Detection Limits					
Acetone	ug/L				5.4 U
Benzene	ug/L				0.50 U
Bromochloromethane	ug/L				0.50 U
Bromodichloromethane	ug/L				0.50 U
Bromoform	ug/L				0.69
Bromomethane	ug/L				0.50 U
2-Butanone	ug/L				5.0 U
Carbon Disulfide	ug/L				0.50 U
Carbon Tetrachloride	ug/L				0.50 U
Chlorobenzene	ug/L				0.50 U
Chloroethane	ug/L				0.50 U
Chloroform	ug/L				0.50 U
Chloromethane	ug/L				0.50 U
Cyclohexane	ug/L				0.50 U
1,2-Dibromo-3-Chloropropane	ug/L				0.50 U
Dibromochloromethane	ug/L				0.50 U
1,2-Dibromoethane	ug/L				0.50 U
1,2-Dichlorobenzene	ug/L				0.50 U
1,3-Dichlorobenzene	ug/L				0.50 U
1,4-Dichlorobenzene	ug/L				0.50 U
Dichlorodifluoromethane	ug/L				0.50 U
1,1-Dichloroethane	ug/L				0.50 U
1,2-Dichloroethane	ug/L				0.50 U
1,1-Dichloroethene	ug/L				0.50 U
cis-1,2-Dichloroethene	ug/L				0.50 U
trans-1,2-Dichloroethene	ug/L				0.50 U
1,2-Dichloropropane	ug/L				0.50 U
cis-1,3-Dichloropropene	ug/L				0.50 U
trans-1,3-Dichloropropene	ug/L				0.50 U
Ethyl Benzene	ug/L				0.50 U
2-Hexanone	ug/L				5.0 U
Isopropylbenzene	ug/L				0.50 U
Methyl Acetate	ug/L				0.50 U
Methyl tert-butyl ether	ug/L				0.50 U
Methylcyclohexane	ug/L				0.50 U
Methylene Chloride	ug/L				0.50 U
4-Methyl-2-Pentanone	ug/L				5.0 U
Styrene	ug/L				0.50 U
1,1,2,2-Tetrachloroethane	ug/L				0.50 U
Tetrachloroethene	ug/L				0.51
Toluene	ug/L				0.50 U

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Activity Desc: Atlantic Water Supply - RA/SE sampling

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Analysis / Analyte	Units	35-FB	41-FB	42-FB	101-
1,2,3-Trichlorobenzene	ug/L			0.50	U
1,2,4-Trichlorobenzene	ug/L			0.50	U
1,1,1-Trichloroethane	ug/L			0.50	U
1,1,2-Trichloroethane	ug/L			0.50	U
Trichloroethene	ug/L			0.50	U
Trichlorofluoromethane	ug/L			0.50	U
1,1,2-Trichlorotrifluoroethane	ug/L			0.50	U
Vinyl Chloride	ug/L			0.50	U
total Xylene	ug/L			0.50	U

Activity Number: JRMAWS

ASR Number: 1659

RLAB Approved Sample Analysis Results

Activity Desc: Atlantic Water Supply - RA/SE sampling

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Analysis / Analyte	Units	102-__	103-__	103-FD	104-FB
Conductivity by Field Measurement					
Conductivity	umhos/c	0.621	0.725	0.725	
pH of Water by Field Measurement					
pH	SU	7.06	6.86	6.86	
Temperature of Water by Field Measurement					
Temperature	Deg C	12.3	15.5	15.5	
VOCs in Water by GC/MS for Low Detection Limits					
Acetone	ug/L	5.0 U	5.0 U	5.0 U	10 U
Benzene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Bromochloromethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Bromodichloromethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Bromoform	ug/L	0.66	0.50 U	0.50 U	1.0
Bromomethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
2-Butanone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon Disulfide	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Carbon Tetrachloride	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Chlorobenzene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Chloroethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Chloroform	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Chloromethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Cyclohexane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dibromo-3-Chloropropane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Dibromochloromethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dibromoethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichlorobenzene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,3-Dichlorobenzene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,4-Dichlorobenzene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Dichlorodifluoromethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,1-Dichloroethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichloroethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,1-Dichloroethene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
cis-1,2-Dichloroethene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
trans-1,2-Dichloroethene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichloropropane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
cis-1,3-Dichloropropene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
trans-1,3-Dichloropropene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Ethyl Benzene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
2-Hexanone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Methyl Acetate	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Methyl tert-butyl ether	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Methylcyclohexane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Methylene Chloride	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
4-Methyl-2-Pentanone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,1,2,2-Tetrachloroethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Tetrachloroethene	ug/L	0.50 U	490	230	0.50 U
Toluene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U

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RLAB Approved Sample Analysis Results

Activity Desc: Atlantic Water Supply - RA/SE sampling

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Analysis / Analyte	Units	102-__	103-__	103-FD	104-FB
1,2,3-Trichlorobenzene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,2,4-Trichlorobenzene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,1,1-Trichloroethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,1,2-Trichloroethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Trichloroethene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Trichlorofluoromethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,1,2-Trichlorotrifluoroethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Vinyl Chloride	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
total Xylene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U

Analysis / Analyte	Units	105-FB
VOCs in Water by GC/MS for Low Detection Limits		
Acetone	ug/L	9.4 U
Benzene	ug/L	0.50 U
Bromochloromethane	ug/L	0.50 U
Bromodichloromethane	ug/L	0.50 U
Bromoform	ug/L	0.82
Bromomethane	ug/L	0.50 U
2-Butanone	ug/L	6.0 J
Carbon Disulfide	ug/L	0.50 U
Carbon Tetrachloride	ug/L	0.50 U
Chlorobenzene	ug/L	0.50 U
Chloroethane	ug/L	0.50 U
Chloroform	ug/L	0.50 U
Chloromethane	ug/L	0.50 U
Cyclohexane	ug/L	0.50 U
1,2-Dibromo-3-Chloropropane	ug/L	0.50 U
Dibromochloromethane	ug/L	0.50 U
1,2-Dibromoethane	ug/L	0.50 U
1,2-Dichlorobenzene	ug/L	0.50 U
1,3-Dichlorobenzene	ug/L	0.50 U
1,4-Dichlorobenzene	ug/L	0.50 U
Dichlorodifluoromethane	ug/L	0.50 U
1,1-Dichloroethane	ug/L	0.50 U
1,2-Dichloroethane	ug/L	0.50 U
1,1-Dichloroethene	ug/L	0.50 U
cis-1,2-Dichloroethene	ug/L	0.50 U
trans-1,2-Dichloroethene	ug/L	0.50 U
1,2-Dichloropropane	ug/L	0.50 U
cis-1,3-Dichloropropene	ug/L	0.50 U
trans-1,3-Dichloropropene	ug/L	0.50 U
Ethyl Benzene	ug/L	0.50 U
2-Hexanone	ug/L	5.0 U
Isopropylbenzene	ug/L	0.50 U
Methyl Acetate	ug/L	0.50 U
Methyl tert-butyl ether	ug/L	0.50 U
Methylcyclohexane	ug/L	0.50 U
Methylene Chloride	ug/L	0.50 U
4-Methyl-2-Pentanone	ug/L	5.0 U
Styrene	ug/L	0.50 U
1,1,2,2-Tetrachloroethane	ug/L	0.50 U
Tetrachloroethene	ug/L	0.50 U
Toluene	ug/L	0.50 U
1,2,3-Trichlorobenzene	ug/L	0.50 U
1,2,4-Trichlorobenzene	ug/L	0.50 U
1,1,1-Trichloroethane	ug/L	0.50 U
1,1,2-Trichloroethane	ug/L	0.50 U
Trichloroethene	ug/L	0.50 U
Trichlorofluoromethane	ug/L	0.50 U
1,1,2-Trichlorotrifluoroethane	ug/L	0.50 U
Vinyl Chloride	ug/L	0.50 U

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Activity Desc: Atlantic Water Supply - RA/SE sampling

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Analysis / Analyte	Units	105-FB
total Xylene	ug/L	0.50 U